Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB

titute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

		,
Sheet	1 '	of i

Complete if Known				
Application Number 10/020,388				
Filing Date	December 2001 - V			
First Nam d Inventor	William Salkewicz			
Art Unit	2152 OCT 1 7 2002			
Examiner Name Not yet assigned				
Attorney Docket Number	4906.Poorechnology Center 210			

	•	U.S. PAT	ENT DOCUMENTS	
. 1	Cite No. 1 Number - Kind Code 2 (if known	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
U	US- 5,832,224	11-03-1998	Fehskens, et al.	
U	US. 5,892,912	04-06-1999	Suzuki, et al.	
74	US- 6,035,105	03-07-2000	McCloghrie, et al.	
4	US- 6,061,349	05-09-2000	Coile, et al.	
7,	us- 6,145,011	11-07-2000	Furukawa, et al.	
4	US- 6,167,052	12-26-2000	McNeil, et al.	
Tu I	US- 6,289,017 B1	09-11-2001	Shani, et al.	
U	ÚS- 5,262,906	11-16-1993 .	Mazzola	
1/2	US- 5,309,437	05-03-1994	Perlman, et al.	
ζÝ.	US- 5,550,816	08-27-1996	Hardwick, et al.	
JI.	US- 5,737,333	04-07-1998	Civanlar, et al.	
W	US- 6,084,892	07-04-2000	Benash, et al.	
7	US- 6,097,719	08-01-2000	Benash, et al.	
"U,	US- 6,172,981 B1	01-09-2001	Cox, et al.	
	US-			
	ÚS-		Contract and Marie Contract of the Contract of Africa Contract of the Contract	The state of the s
	us-		To address the state of the sta	make in the second and described the second in the second on the second of the second

	_										
	FOREIGN PATENT DOCUMENTS										
Examin Initials		Foreign Patent Document Country Code 3 - Number 4 - Kind Code 5 (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т6					
		`									
	 										

	 $1 \triangle$		·		
Examiner	171	1000	1	Date ·	9/07/04
Signature	 ν ν	WILL.		Considered	701/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB

TA TRADEN

ubstitute for form 1449A/PTO

FORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of Sheet

Complete if Known				
Application Number 10/020,388				
Filing Date	December 14, 2001			
First Named Inventor	William Salkewicz			
Art Unit	2152			
Examiner Name	Not yet assigned			
Attorney Docket Number	4906.P001D			

-		U.S. PAT	ENT DOCUMENTS	
Examiner Initials	Cite No. 1 Number - Kind Code ² (if known	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
71	us- 5659796	08-19-1997	Thorson et al.	
7	US- 5604680	02-18-1997	Bamji et al.	
4,	us- 5684974	11-04-1997	Onodera	
1/4	US- 5692193	11-25-1997	Jagannathan et al.	
7,	US- 5761477	06-02-1998	Wahbe et al.	
= 1	US- 5784707	07-21-1998	Khalidi et al.	
7	US- 6105027	08-15-2000	Schneider et al.	
7,	US- 6128665	10-03-2000	Iturralde	
-li	US- 6219699 - B1	04-17-2001	McCloghrie et al.	
7,	US- 6223218 - B1	04-24-2001	Iijima et al.	
h	US- 6226751	05-01-2001	Arrow et al.	
	US-			
	US-		· ·	
	US-			
	US-			
	US-		·	
	us-			

	FOREIGN PATENT DOCUMENTS								
Examiner Initials	Cite No. 1	Foreign Patent Document Country Code 3 - Number 4 - Kind Code 4 (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т6			

	l		
Examiner	Mon	Date	9/01/64
Signature	 00000	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. control number.

	4 4400/070			Complete if Known		
	for form 1449B/PTO			Application Number	10/020,388	
			ri Aciide i		December 14, 2001	
				First Named Inventor	William Salkewicz	
STATEMENT BY APPLICANT		- FIII. MINI	Group Art Unit	2152		
	(use as many sheet	vis as r		Examiner Name	Not yet assigned	
Sheet	2	of	4	Attorney Docket Number	4906.P001D	_

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	_
Examiner hitials	Cite No. ¹	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue pumber(s), publisher city and/or country where published	T
H		Adve, V., et al., "Performance Analysis of Mesh Interconnection Networks with Deterministic Routing," IEEE Transactions on Parallel and Distributed Systems, Vol. 5, No. 3, pp. 225-246, March 1994.	
4		Almquist, P., "Towards Requirements for IP Routers," Network Working Group, RFC 1716, November 1994.	
4		Austin, T., et al., "Efficient Detection of All Pointer and Array Access Errors," Proceedings of the ACM Conference on Programming Language Design and Implementation, pp. 290-301, June 1994.	
74		Bolla, R., et al., "A neutral Strategy for Optimal Multiplexing of Circuit-and-Packet-Switched Traffic," GLOBECOM '92 IEEE Communication Society, pp. 1324-1330, December 1992.	
4		Brooks, R., et al., "An Optimizing Compiler for Lexically Scoped LISP, " ACM Symposium on LISP and Functional Programming, pp.261-275, August 1982.	
74		Buzen, J.P., et al., "The Evolution of Virtual Machine Architecture, " AFIPS National Computer Conference, pp. 291-299, June 1973.	
M		Comer, D., "Computer Networks and Internets," Prentiss Hall, 1997.	
4		Cmelik, B., et al., "Shade: A Fast Instruction - Set Simulator for Execution Profiling, " ACM SIGMETRICS Conference on Measurement and Mpdeling of Computer Systems, pp. 128-137, May 1994.	
W		Dally, W.J., et al., "Deadlock-Free Message Routing in Multiprocessor Interconnection Networks," IEEE Transactions on Computers, Vol. C-36, No. 5, pp. 547-553, May 1987.	
4		Dally, W.J., "Virtual-Channel Flow Control," Proc. 17th International Symposium on Computer Architecture, pp. 60-68, May 1990.	
U		Dally, W.J., "Performance Analysis of k-ary n-cube Interconnection Networks, "IEEE Transactions on Computers, Vol. 39, No. 6, pp. 775-785, June 1990.	

		المراب
Examiner	//wn	Date 9/01/r/p
Signature		Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Workington, DC 20231. Washington, DC 20231.



¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB

Substitute for form 1449B/PTO

3

control number.

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known			
Application Number	10/020,388		
Filing Date	December 14, 2001		
First Named Inventor	William Salkewicz		
Group Art Unit	2152		
Examiner Name	Not yet assigned		
Attorney Docket Number	4906.P001D		

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue		
4		Dally, W.J., et al., "Deadlock-Free Adaptive Routing in Multicomputer Networks Using Virtual Channels," IEEE Transactions on Parallel and Distributed Systems, Vol. 4, No. 4, pp. 466-475, April 1993.		
14		Davidson, J., et al., "Cint: A RISC Interpreter for the C Programming Language," Proceedings of the SIGPLAN '87 Symposium on Interpreters and Interpretive Techniques, pp. 189-197, June 1987.		
7,	·	Deutsch, L.P., et al., "Efficient Implementation of the Smalltalk-80 System," Proceedings of the 11th Annual ACM Symposium on Principles of Programming Languages, pp. 297-302, January 1984.		
M		Duato, J., "Anew Theory of Deadlock-Free Adaptive Routing in Wormhole Networks," IEEE Transactions on Parallel and Distributed Systems, Vol. 4, No. 12, pp. 1320-1331, December 1993.		
- Un	Ellis, J., et al., "Safe, Efficient Garbage Collection for C++," Proceedings of the 1994 USENIX C++ Conference, pp. 142-177, April 1994.			
M		Fischer, C., et al., "The Implementation of Run-Time Diagnostics in Pascal," IEEE Transactions on Software Engineering, Vol. SE-6, No. 4, pp. 313-319, July 1980.		
M		Gallager, R., "Scale Factors for Distributed Routing Algorithms," NTC '77 Conference Record, December 1977.		
The		Glass, C.J., "The Turn Model for Adaptive Routing," Proc. 19th International Symposium on Computer Architecture, PP. 278-287, May 1992.		
U		Goldberg, R., "Survey of Virtual Machine Research," Honeywell Information Systems and Harvard University, pp. 34-45, June 1974.		
Th		Jesshope, C.R., et al., "High Performance Communications in Processor Networks," Proc. 16th International Symposium on Computer Architecture, pp. 150-157, May 1989.		
The		Kirkpatrick, S., et al., "Optimization by Simulated Annealing," Science, Vol. 220, No. 4598, pp. 671-680, May 1983.		
L			وجوا	

Examiner	Mon	Date Considered	9/01	104
Signature		I Considered:		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20234. Washington, DC 20231.



¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB

Substitute for form 1449B/PTO

control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of Sheet

Complete if Known			
Application Number 10/020,388			
Filing Date	December 14, 2001		
First Named Inv ntor	William Salkewicz		
Group Art Unit	2152		
Examiner Name	Not yet assigned		
Attorney Docket Number	4906.P001D		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.1		
16	Leinwand, A., et al., Cisco Router Configuration, MacMillan Technical Publishing, Indianapolis, IN, 1998.		
4	Li, K., et al., "Memory Coherence in Shared Virtual Memory Systems," ACM Transactions on Computer Systems, Vol. 7, No. 4, pp. 321-359, November 1989.		
U		Linder, D.H., et al., "An Adaptive and Fault Tolerant Wormhole Routing Strategy for k-ary n-cubes," IEEE Transactions on Computers, Vol. 40, No.1, pp. 2-12, January 1991.	
4		Luckham, D., et al., "Verification of Array, Record, and Pointer Operations in Pascal," ACM Transactions on Programming Languages and Systems, Vol. 2, No. 2, pp. 226-244, October 1979.	
re	May, C., MIMIC: A Fast System/370 Simulator," Proceedings of the SIGPLAN '87 Symposium in Interpreters and Interpretive Techniques, pp. 1-13, June 1987.		
4	Sites, R., et al., "Binary Translation," Communications of the ACM, Vol. 36, No. 2, pp69-81, February 1993.		
u		Stallings, W., High Speed Networks: TCP/IP and ATM Design Principles, Prentice Hall, 1998.	
U		Talia, D., "Message-Routing Systems for Transputer-Based Multicomputers," IEEE Micro, No. 3, pp. 62-72, June 1993.	
U		Wahbe, R., et al., "Efficient Software-Based Fault Isolation," Proceedings of the Symposium 14th ACM on Operating System Principles, pp. 203-216, December 1993.	
~		Yang, C.S., et al., "Performance Evaluation pf Multicast Wormhole Routing in 2D-Torus Multicomputers," ICCI '92 IEEE Computer Society, pp. 173-178, May 1992.	
M		Yantchev, J., "Adaptive, Low Latency, Deadlock-Free Packet Routing for Networks of Processors," IEEE Proceedings, Vol. 136, Pt. E, No. 3, pp. 178-186, May 1989.	

Examiner		11000	Date	9/01/14
Signature	V	Da T	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \cdot

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English (anguage Translation is attached.